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A RARE CASE OF RETROGRADE INTUSSUSCEPTION

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Abstract : A 60 years old male was admitted in emergency ward with abdominal pain, bleeding per rectum vomiting. On examination, he had a vague tender mass over the left lumbar region. Per rectal examination showed blood stained fecal matter. X ray abdomen showed features of intestinal obstruction with dilated large bowel loops. Ultrasound of abdomen was done which showed pseudo kidney sign in the left lower abdomen. Also Contrast enhanced CT Abdomen was done and it showed infolding loops of bowel in distal descending colon with target like appearance and dilated proximal colon which was suggestive of Intussception. Laparotomy was planned and the intraop finding was a retrograde intussuception of sigmoid colon into the descending colon. There was no gangrene of the bowel and reduction was not attempted. The involved segment of colon was resected and Hartman's procedure done. Postop period was uneventfull. We report this case, as retrograde intussuception in sigmoid colon is a very rare presentation.

Keyword :retrograde intussusception, sigmoid colon, target sign, intestinal obstruction

INTRODUCTION:

Intussusception as a cause of intestinal obstruction is quite rare in adults. However, intussusceptions do occur in adults, especially in older adults and is often associated with malignancies.

CASE REPORT

A 60yrs old male presented to the emergency department with history of abdominal pain, more in hypogastrium along with bleeding per rectum and non-bilious vomiting all of which was present for about one week duration. He also had loss of appetite with massive bouts of hematemesis (4 episodes) and frank bleeding per rectum. There was no history of malena, jaundice, fever, abdominal distension and loss of weight. Patient had no other medical comorbidities. He is a smoker and alcoholic with the last alcoholic binge 20 days prior to admission. On examination, Patient had mild dehydration, pallor and a rapid thready low volume pulse of 112/min. His blood pressure was normal. Patient was resuscitated with Intravenous Crystalloids and blood components. Patient was hemodynamicaly stabilised. Per abdomen findings included tenderness in hypogastrium and a vague mass in left lumbar region. Per rectal examination showed blood mixed fecal staining, no mass was palpable and sphincter tone was normal. There was no evidence of diffuse abdominal distension clinically. Basic Investigations were within normal limits. USG abdomen revealed dilated bowel loops with wall thickening and “pseudokidney” appearance in left lumbar and left iliac fossa. Contrast Enhanced CT abdomen was done which showed evidence of infolding loops of bowel with “target” like appearance **(Fig:1)** with dilated descending colon, transverse colon and ascending colon with no free fluid in abdomen. The impression was of that of "intussusception". The patient was taken up for emergency laparotomy. Under General Anaesthesia, laparotomy done. Dilated bowel loops were found on opening the abdomen. There was no evidence of gangrene or perforation of any of the bowel segments. Intussuscepted segment of bowel identified **(Fig:2).** Reduction of intussusception not attempted as it would disseminate any tumor cell which could have been the causative lead point. Limited resection of intussusceptum done, distal end closed and the dilated proximal end brought out as colostomy. The Resected specimen was cut open to see the hard growth in the descending colon whose HPE later came as adenocarcinoma - descending colon - moderately differetiated. **(Fig:3)**. Definitive management was carried out later.

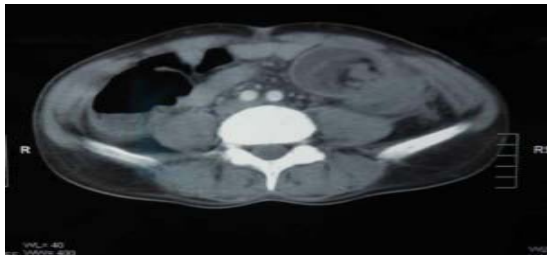

Fig 1: Target sign in CECT abdomen

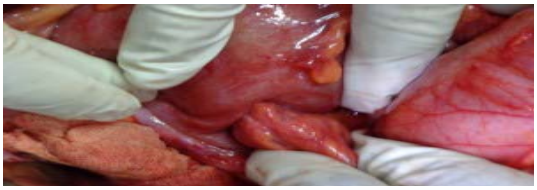

Fig 2: Retrograde intussusception involving sigmoid and descending colon

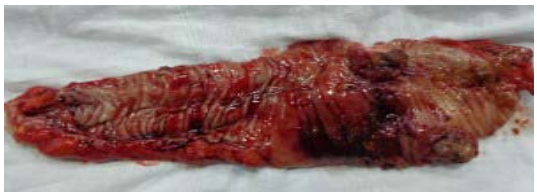

Fig 3: Resected specimen showing the colonic growth which was the lead point for the retrograde intussusception

DISCUSSION

The first report of a case of retrograde intussusception was way back in 18th century by john hunter, one of the founding fathers of scientific surgery[1]. Intussusception is one entity in which one segment of intestine (intussusceptum) becomes drawn into the adjacent segment (intussuscepiens). Retrograde intussusceptions is invagination of the intussusceptum in an antiperistaltic or proximal direction[2]. Intussusception is rare in adults with about 0.003% to 0.02% of total hospital admissions and 1-2% of all bowel obstructions in adults with 80-90% having an underlying cause of which 65% is due to neoplasms. Adult intussusceptions represent only about 5% of all intussusceptions [3] and thus a rare cause of hospital admissions, accounting for only 0.005% [4].

ETIOLOGY:

1. Idiopathic (Most commonly in children)
2. Neoplasm

a. Benign (small bowel) - Polyp, Leiomyoma, Lipoma, Lymphoma, Adenoma of appendix, Appendiceal stump granuloma

b. Malignant – Primary (Colon), Metastatic (small bowel)

TYPES:

1. Anterograde - ileocolic, ileoileal,colocolic
2. Retrograde – a. jejunogastric (post gastric bypass),

b. sigmoid colon

PATHOLOGY:

The most important aspects of the pathology of intussusception is lead point and anti-peristalsis. Lead point refers to that which acts as the initiator of the events thereof. Lead point could be a tumor or an enlarged node commonly. But in adults in 65% of cases, it is due to a growth. As a result of this Lead point initiating the anti-peristalsis a segment of intestine gets telescoped into the adjacent segment. This results in compression, venous congestion, edema, gangrene, all happening in order. The most common form of anterograde intussusception is ileocolic followed by ileoileal and colocolic. Retrograde intussusception is that type wherein the distal bowel segment invaginates into the proximal segment in a retrograde manner. This commonly occurs in a case of post gastrectomy rouxen y anastamosis (jejunogastric). It can also occur in sigmoid colon region where the sigmoid colon invaginates into the proximal descending colon.

CLINICAL ASSESSMENT & INVESTIGATIONS:

The patient suspected to have intussusception frequently presents with intermittent colicky abdominal pain with nausea and vomiting and Per Rectal examination often reveals blood at rectum. Intussusception is considered as an acute abdomen as timely intervension, if not undertaken might result in gangrene of the involved bowel segments. Rarely patients complain of passing red currant jelly stools. However, the most common form of presentation is with nonspecific symptoms. Intussusceptions are usually not associated with fever. However, fever can occur if the involved bowel segments are going in for gangrene. Lethargy can sometimes be the only symptom. Abdominal mass is rarely found. The hallmark physical finding that aids in diagnois of this condition is the presence of a "sausage shaped mass" in the right lower quadrant. This is called "Dance sign". This mass can often be felt between the spasms. However, dance sign is more marked in children where the most common type of intussusception is ileocolic. On X-ray abdomen erect view, often signs of intestinal obstruction with grossly dilated proximal loops and collapsed distal loops may be seen. CT abdomen (Target sign) is accurate in detecting intussusception in 80% of cases[5]. USG abdomen is often used in children. Resusitation of the patient with intravenous fluids to compensate for the third space fluid loss is mandatory. Abdominal pain, red currant jelly and a vague abdominal mass can sometimes be considered as s triad of findings suggestive of intussusception. Lethargy may be the lonely symptom sometimes[6]. The Intussuscepted bowel segment can sometimes go in for perforation or gangrene. [7]

TREATMENT:

The management of Intussusception in adults is completey different from that of the adults. In children, either pneumatic or hydrostatic methods may be used to reduce the intussusception. In the case of a retrograde intussusception, like in the anterograde type, resection of the involved segment is the standard of care. Preopeartive preparation of the patient is done to improve the hypovolumia if any. However, reduction of the involved bowel is strictly not recommended as it can cause spread of the neoplastic component especially in adults in whom about 65% of cases have a tumor as lead point. Reduction also entails the risk of perforation of the intussuscepted bowel and venous embolization at the ulcerated mucosal part of the bowel. In case of jejunogastric intussusception, resection of the involved bowel along with revision of jejunostomy was done. Operative reduction with or without enteropexy can also be done. [8]. However jejunogastric intussusceptions never occur only in billroth - I anastamosis. [9]

CONCLUSION:

Though intussusceptions are considered as a rare cause of intestinal obstruction, it should be suspected in older people presenting with subtle abdominal findings. The most important fact regarding the management is the reduction of intussusception in adults is that, should not be attempted and resection of the involved segment is madatory. GThe bowel segments may be either primarily anastamosed or brought out as ostomy.

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